

Application Serial No.: 10/799,505
Attorney Docket No.: 0160114

REMARKS

This is in response to the *Non-Final* Office Action of September 26, 2007, where the Examiner has rejected claims 1-12, and objected to claims 13-18. By the present Amendment and Response, applicant has amended claims 1, 5 and 9. After the present Amendment and Response, claims 1-18 are pending in the present application. Reconsideration and allowance of outstanding claims 1-18 in view of the following remarks are requested.

A. Rejection of Claims 1, 5 and 9 Under 35 USC § 112, ¶ 2

The Examiner has rejected claims 1, 5 and 9, under 35 USC § 112, ¶ 2, stating that the term “close” is indefinite. Applicant respectfully disagrees; however, in order to expedite the prosecution of the present application, applicant has amended claims 1, 5 and 9 to delete the term “close”. Accordingly, applicant respectfully submits that the Examiner’s rejection of claims 1, 5 and 9, under 35 USC § 112, ¶ 2, has been overcome.

B. Rejection of Claims 1-12 under 35 USC §102(b)

The Examiner has rejected claims 1-12, under 35 USC §102(b), as being anticipated by Nishiguchi, et al. (USPN 5,809,455) (“Nishiguchi”).

The Examiner states that Nishiguchi discloses “reducing a spectral valley energy of said input speech signal when said spectrum tilt of said input speech signal is equivalent to said spectrum tilt of said background noise model,” at col. 11, line 49 – col. 12, line 27, Figs. 5 and 6. Further the Examiner states that Fig. 13, item 125, discloses “applying an inverse filter to said input speech signal when said spectrum tilt of said input speech signal is not equivalent to said

Application Serial No.: 10/799,505
 Attorney Docket No.: 0160114

spectrum tilt of said background noise model, wherein said inverse filter is an inverse of said z-domain representation of said background noise model.” Applicant respectfully disagrees.

For example, at col. 11, line 49 – col. 12, line 27, Nishiguchi provides as follows:

Thus, in the present fourth embodiment, the standard deviation σ_{rms} and a mean value μ_{rms} of the effective values (rms values) of the 32 sub-blocks of each block are found and the distribution of the effective values (rms values) is detected depending on these values, for example, on the ratio of these values. That is, the effective rms value of each

Since the standard deviation σ_{rms} according to formula (16) is increased with increase in the signal level, it is normalized by division with the mean value μ_{rms} of the formula (15). If the normalized standard deviation is expressed as α_{rms} ,

$$\alpha_{rms} = \sigma_{rms} / \mu_{rms} \quad (17)$$

where α_{rms} becomes larger and smaller for a voiced speech segment and an unvoiced speech segment or the background noise, respectively. Since the speech signal may be deemed to be voiced if α_{rms} is larger than a predetermined threshold value α_{th} while it may be highly likely to be unvoiced or background noise if α_{rms} is smaller than the threshold value α_{th} , the remaining conditions, such as the signal level or the tilt of the spectrum, are analyzed. The concrete value of the threshold value α_{th} may be set to 0.4 ($\alpha_{th} = 0.4$).

Therefore, Nishiguchi discloses that the standard deviation from the subblock 32 (Window Analysis) is used to determine that the speech signal is voiced if the standard deviation is larger than a predetermined threshold and to determine that the speech signal unvoiced or background noise if the standard deviation is smaller than the predetermined threshold. Nishiguchi then goes on to merely point out that remaining conditions, such as the title of the spectrum is analyzed. This disclosure, however, falls short of disclosing, teaching or suggesting that Nishiguchi makes a determination as to whether the spectrum tilt of the input speech signal

Application Serial No.: 10/799,505
Attorney Docket No.: 0160114

is equivalent to the spectrum tilt of the background noise model, and if so, reducing a spectral valley energy of the input speech signal.

Even more, item 125 in Fig. 13 of Nishiguchi merely shows an “inverse transform of data number,” and does not come close to disclosing, teaching or suggesting that Nishiguchi makes a determination as to whether the spectrum tilt of the input speech signal is equivalent to the spectrum tilt of the background noise model, and if so, applying an inverse filter to the input speech signal.

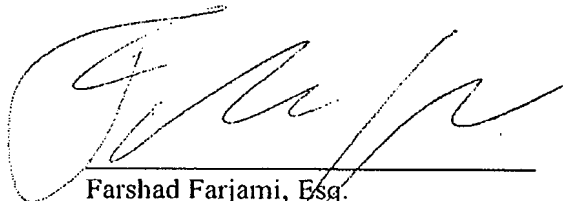
Accordingly, at least for the reasons stated above, applicant respectfully submits that claim 1 is patentably distinguishable over Nishiguchi. Therefore, claim 1, and its dependent claims 2-4, should be allowed. In addition, claims 5 and 9 include limitations similar to those of claim 1 and, thus, claims 5 and 9, and their respective dependent claims 6-8 and 10-12, should also be allowed. Further, applicant acknowledges and appreciates the Examiner’s statement that dependent claims 13-18 would be allowable if rewritten in independent form.

Application Serial No.: 10/799,505
Attorney Docket No.: 0160114

C. Conclusion

Based on the foregoing reasons, an early Notice of Allowance directed to all claims 1-18 pending in the present application is respectfully requested.

Respectfully Submitted,
FARJAMI & FARJAMI LLP



Farshad Farjami, Esq.
Reg. No. 41,014

FARJAMI & FARJAMI LLP
26522 La Alameda Ave., Suite 360
Mission Viejo, California 92691
Telephone: (949) 282-1000
Facsimile: (949) 282-1002

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this correspondence is being filed by facsimile transmission to United States Patent and Trademark Office at facsimile number (571) 273-8300, on the date stated below.

10/31/07
Date

Masei M. Sweeda
Name

[Signature]
Signature